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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,630	05/12/2005	Christian Kotter	4836-000012/NP	4564
27572                      7590                      10/16/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303				
EXAMINER SANDERS, JAMES M				
ART UNIT		PAPER NUMBER		
1791				
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10/16/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/516,630

**Applicant(s)**

KOTTER ET AL.

**Examiner**

JAMES SANDERS

**Art Unit**

1791

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18-22, 24, 25 and 27-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-22, 24, 25 and 27-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-083)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This is a final Office action in response to a non-final Office action reply filed 6/12/09, in which claims 18-21, 31-32 and 35 were amended.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 18, 20-22, 24-25, 27-28 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay (GB 360 968 A, already of record), and further in view of Picagli et al (EP 0089029, already of record).

For claims 18 and 27, MacKay teaches a method for the preparation of material having a leather-like surface, comprising the steps of: applying a pulp comprising leather fibers,

suspending agents, binders and optionally additives, to the porous surface of a vacuum tool; applying a vacuum in the vacuum tool to deposit pulp to a desired layer thickness along the porous surface; and transferring the material to a press tool and applying pressure to remove moisture and densify it (pg 1, Ins 19-92). Mackay does not explicitly teach a vacuum tool having the geometry of a three-dimensional molded part.

However, the vacuum tool "screen" disclosed by MacKay is capable of being arranged into a three-dimensional geometry, and a mere change in shape would have been within the level of ordinary skill in the art. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include this option which is well within his or her technical grasp, for the benefit of forming an object of three-dimensional structure. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made, when changing shape to a three-dimensional geometry, to take care in applying the pulp uniformly around the three-dimensional screen since MacKay teaches spreading it in a thin layer (pg 1, Ins 24-28).

MacKay does not teach pulp containing leather fibers in an amount of from 0.1 to 10% by weight and a majority of the fibers have a length of from 0.2 to 3 mm or from 0.3 to 3 mm.

However, Picagli et al, in the same field of endeavor of reconstituted leather manufacture, teach that a pulp is employed which contains leather fibers of a length less than 0.25 in (pg 11, ln 11, note 0.25 in = 6.35 mm).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify MacKay in view of Picagli et al, to employ pulp which contains

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leather fibers of a length of from 0.2 to 3 mm or from 0.3 to 3 mm., since the methods lend themselves to optimization, and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. One would have been motivated to perform routine experimentation for the purpose of optimizing process parameters. Please see *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 for further details.

Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use pulp containing leather fibers in an amount of from 0.1 to 10% by weight, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. One would have been motivated to perform routine experimentation for the purpose of optimizing process parameters. Please see *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 for further details.

For claims 20-21 and 25, MacKay does not teach that the reconstituted leather is dried and the reconstituted leather is provided with a surface finish and that the surface properties of the reconstituted leather can be modified by embossing, grinding, plasma treatment, corona treatment, sand blasting or shot blasting.

However, Picagli et al teach that the reconstituted leather is dried (pg 17, ln 15) and the reconstituted leather is provided with a surface finish and that the surface properties of the reconstituted leather can be modified by embossing, grinding, plasma treatment, corona treatment, sand blasting or shot blasting (pg 19 lns 6-13).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of MacKay with the teachings of Picagli et al for the benefit of producing reconstituted leather resembling conventional leather, as suggested by Picagli et al (pg 19, Ins 12-13).

For claim 22, MacKay teaches that the porous surface of said vacuum tool is formed from a material selected from the group consisting of a sintered powder metal, a ceramic, a metal foam, and a plastic foam or screen (pg 1, Ins 82-83, i.e. leave a deposit on the screen).

For claim 24, MacKay does not teach that said pulp contains leather fibers in an amount of from 0.5 to 2% by weight.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use pulp containing leather fibers in an amount of from 0.5 to 2% by weight, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. One would have been motivated to perform routine experimentation for the purpose of optimizing process parameters. Please see *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 for further details.

For claim 28, MacKay teaches that said binder is selected from the group consisting of natural rubber, polyurethane, polyacrylates, dispersions of acrylic esters, vinyl esters and isobutylene polymers and mixed polymers, or a vinyl acetate (pg 2, Ins 60-61, i.e. India-rubber latex).

For claims 36 and 37, MacKay teaches that a pulp is employed which further contains non-collagenous fibers and that said non-collagenous fibers are selected from the group consisting of cellulose, cotton and/or plastic fibers (pg 2, lns 25-30, i.e. beaten vegetable fibers such as cotton, hemp, etc.).

5. Claims 19 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay, further in view of Picagli et al, and further in view of Dimiter (US Patent 4,287,252, already of record).

For claim 19, the previous combination does not teach that the reconstituted leather is profiled.

However, Dimiter, in the same field of endeavor of reconstituted leather manufacture, teaches an improved reconstituted leather that is profiled (cl 3, lns 17-19, i.e. the web...is buffed on both sides to expose the natural leather particles).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of MacKay/Picagli et al with the teachings of Dimiter to obtain the benefit of a profiled skin.

For claims 29-30, Dimiter teaches that said binder is present in an amount of from 10 to 50% by weight, based on the dry weight and that said binder is present in an amount of from 15 to 30% by weight, based on the dry weight (cl 2, ln 21, i.e. 15% to 25% binder).

6. Claims 31-33 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay, further in view of Picagli et al, and further in view of Barash (US 3,542,910, already of record).

The MacKay/Picagli et al combination does not teach that the drying step comprises the polymerization, polycondensation, cross-linking and/or film forming of the binder and that the reconstituted leather has an average dry layer thickness of from 0.1 to 6 mm or that the reconstituted leather has an average dry layer thickness of from 0.1 to 2 mm. However, Barash, in the same field of endeavor of reconstituted leather manufacture, teaches that the drying step comprises the polymerization, polycondensation, cross-linking and/or film forming of the binder (cl 4, lns 71-75 and cl 5, lns 1-20) and that the reconstituted leather has an average dry layer thickness of from 0.1 to 6 mm or from 0.1 to 2 mm (cl 5, lns 23-24, note 0.24 in = 6 mm and 0.08 in = 2 mm).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of MacKay/Picagli et al with the teachings of Barash for the benefit of using an efficient drying step and a desired uniform thickness, as suggested by Barash (cl 5, ln 23).

7. For claims 38-40, Barash teaches a part having a leather-like surface, comprising furniture, clothing, accessories, installation parts, veneers and trims and that said trim are selected from the group consisting of floor trims, pillar trims, trunk trims, door trims, dashboard trims, switches, gearshift levers, seat cushions, seat rests, doorknobs and steering wheel covers (cl 5, lns 47-49, i.e. can be used in place of high grade natural leathers in such applications as shoes, clothing, upholstery...).

Note that "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in



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the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

8. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay, further in view of Picagli et al, and further in view of Sato et al (US Patent 4,919,189, already of record).

The MacKay/Picagli et al combination does not teach that a mold with mobile slides for forming undercuts is employed.

However, Sato et al, in a method of casting involving a slidable die to form an undercut, teach the concept of employing a mold with mobile slides for the benefit of forming undercuts (cl 1, lns 56-59).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of MacKay/Picagli et al with the teachings of Sato et al for the benefit of being able to form undercuts.

9. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacKay, further in view of Picagli et al, and further in view of Purser (US Patent 5,232,643, already of record).

The MacKay/Picagli et al combination does not teach that the reconstituted leather is released from the surface of the vacuum tool and provided with a foam backing or injection-molded backing.

However, in the same field of endeavor of reconstituted leather manufacture, Purser teaches providing a reconstituted leather with a foam backing or injection-molded backing (cl 3, lns 1- 24, i.e. foam adheres directly to the rear face of cloth covering). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of MacKay/Picagli et al with the teachings of Purser for the benefit of being able to provide a foam backing.

***Response to Arguments***

Applicant's arguments filed 6/12/09 were fully considered and are not persuasive.

Applicant asserts that a teaching of fibers having a diameter of "less than 6.35 mm" cannot fairly be interpreted as teaching a majority of fiber lengths in the range of 0.2 to 3 mm because according to Pacagli et al, fibers are passed through a ¼ in (6.35 mm) mesh screen and thus, the fibers of Pacagli et al have a diameter of less than a ¼ inch but a length dimension is unknown. Applicant further asserts that fibers of significantly greater length than 3 mm could pass through such a screen provided that the fiber diameters were small enough, and since Pacagli et al does not teach the requirement of a majority of fibers of less than 3 mm in length, nor recognize the importance of providing fibers of less than 3 mm in length to carry out the presently claimed invention, reconsideration should be made. Examiner, however, points out that the ¼ inch mesh screen separates the chopped leather fibers based primarily on their length dimension. The majority of longer fibers would not be so properly aligned with a screen opening as to directly pass through it, rather they would be caught on the mesh and held back by it.

Applicant also asserts that the "buffing" taught by Dimiter is not "profiling" as required under the present claim 19 because "buffing" is the process of removing abrasions from a leather web such as suede or nubuc type leather, or in other words, buffing leather is the removal of bumps and other unevenness from the leather surface, and in contrast, profiling is a process by which the unevenness of the leather surface is enhanced, so profiling results in the opposite effect as buffing. Examiner, however, points out that, as taught by Dimiter, buffing exposes the natural leather particles, which inherently form an uneven, profiled surface.

### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES SANDERS whose telephone number is 571-

270-7007. The examiner can normally be reached on Monday through Friday, 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on 571-272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMS

/Joseph S. Del Sole/  
Supervisory Patent Examiner, Art Unit 1791